

**A NOISE DETERMINER, A DSL MODEM INCLUDING A NOISE
DETERMINER AND A METHOD OF DETERMINING
NOISE IN A COMMUNICATIONS SYSTEM**

ABSTRACT OF THE DISCLOSURE

A noise determiner for use with a communications system, a method of determining noise in a communications system and a digital subscriber line (DSL) modem. In one embodiment, the noise determiner includes (1) a crosstalk identifier that detects directly a noise source in a frequency domain from observed noise associated with the communications system and (2) a crosstalk estimator coupled to the crosstalk identifier and that provides a corresponding level of the noise source.